

References Cited

U.S. PATENT DOCUMENTS

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4,333,271	6/1982	De Paolo et al.
4,384,436	5/1983	Green.
5,228,238	7/1993	Fenkell.
5,335,452	8/1994	Taylor.
5,345,716	9/1994	Caplan.
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5.383,315	1/1995	Birs.

OTHER PUBLICATIONS

Building Performance: Hurricane Andrew in Florida, 1993, Federal Emergency Management Agency, FIA-22, p.35.

Building Performance: Hurricane Iniki in Hawaii, 1993, Federal Emergency Management Agency, FIA-23, p. 54.

Hurricane Hugo One Year Later, 1991, American Society of Civil Engineers, p. 55.



This letter is in response to a notice of omitted items in a non-provisional application number: 09/690, 657 of Thomas Thompson's with pages 15, 16,17, 30, 31, 32 missing the postcard that I received back from the patent office said they had received 32 pages my check and drawings.

The response from the patent office states that I have two months to reply with a hundred and twenty dollars which I have included, I was out of the country from December 1st to January 17 my neighbor who is watching out for my house and taking care of my mail had a heart attack and was in the hospital and died January 22nd Iwould have responded sooner but he was my friend 30 for years and my brother came over to help me with three other office actions and this response was something I could do myself. Am also enclosing a letter that I testifed to on Feb,9 2001.

Thomas C. Thorpus

Thank You Verey Much



Testimony of Thomas Thompson

To the Senate committee on, Ways and Means in support of Senate Bill 838SD

Relating to Hawaii Hurricane Relief Fund, 9:00am meeting

To Sen. Brian Tanigughi, chair. Sen. Colleen Hanabusa vice chair

And members of the committee

My name is Thomas Thompson and I am testifying in support of Senate bill Apps which would provide hazard mitigation matching grants to policyholders of the HHRF. It has been proven that hurricane ties, straps, or similar devices strengthen the weakest connection, which is from the walls to the roof rafter. In older homes, carpenters secured the roof by driving the nails into the rafter and top plate at a slight angle which is called toe nailing. The building industry realized that this was a poor practice and now all building codes where high winds are expected require the use of hurricane ties.

Here we sit in the middle of the Pacific Ocean with no way of evacuating people who could be exposed to not only hurricane winds, but the storm surge caused by them. I have lived in my home in Makakilo for 30 years and know that the Redwood siding and cedar tongue-and-groove roof sheathing could not be duplicated. Nor could the sturdy 4 by 8 old-growth rafters. These old classic homes should not be relegated to the dump just because the weakest connection had not have upgraded by inexpensive metal connectors that could increase the strength by a factor of 10.

One reason why hurricane ties are so important is that older homes with their large rafters could only be fastened with two or three nails, identical to modern 2x4's, due to the angle of the nail and purchase of the wood. My home has 10 rafters on each side with a maximum four nails per rafter. That leaves only 40 nails to hold down each side of my house, and all these nails are at an angle that allows them to be pulled out when uplift occurs, as during strong winds or hurricanes.

Hawaii could and should be the leader in developing a program that strengthens homes. The University of Hawaii has developed and built a test apparatus allows full-scale testing of hurricane clips, and also has a test bed for earthquake testing. I have talked to Mr. Cuou, who was past president of wind engineering, and he was very receptive to testing my design that not only holds the rafter, top plate, and walls, together, but the actual roof sheathing It would exceed all current building codes and is designed for existing buildings and new ones.

FEMA is very wrong when it states that every dollar invested in mitigation saves two. For less than two hundred dollars in hardware, and a conservative price of \$1000 in labor, you could save the replacement cost of your house, plus the demolition and placement into the landfill replacement. Plus the value of furnishings, if you are fortunate enough to live through it, and the lost time from work, and hotel bills while trying to find an honest contractor for rebuilding. And that is just for one house.

In less than one day, you could have enough debris, that were once people's houses and most prized possessions, that it would exceed all Hawaiian landfill quotas for years. I have no idea how one would dispose of all the treated-lumber because burning and burial are not recommended. Kauai has already faced this problem from Hurricane Iniki, and was still having problems almost a decade later.

The causes of building damage during hurricanes, as well as the appropriate measures to prevent it are well understood by design, code, and insurance professionals. However well understood, they are rarely implemented.

Tom Thompson





Pall Bearers

Eric Pali Lloyd Akiona David Kaauwai Charles Kuahine James Moa Lyle Batula Tom Thompson Jimny Wilson Fred Simbahon
Artemio Ramos
Mariano Rellin
Francis Guerrero
Pat Oshiro
Dennis Kekona
Michael Crozier
Leighton Siu
Kunane Williams
Al Lopez
Gino Kia

Honorary Pall Bearers

The Family wishes to thank its many relatives, friends, and neighbors for all their prayers, concerns and love.





August 24, 1933 – January 22, 2001

Butch his dog Great-grandchild – Isaiah Ferris Grandchildren – Ikaika, Kala, Maka`ala, and Pono Akiona Francis and Nani Hoku Ferris Tyler, Trisha, and Troy Loterbauer Kahea Akiona

Son – Kevin Akiona (LeeAnn)
Daughters – Frances Sakamoto (Glenn)
Trina Loterbauer (Rick)
Wife – Sarah (Chung) Akiona

Burial at "Garden of Peace" with

Military Acknowledgement

KMCAS.

Depart to Hawaiian Memorial

Continue viewing

5, 2001
February
Mohary,

	9:00		11:00	11:30	1:30	2:00
		Read By Berna Baclaan & Blair Lum	Fred Simbahon		Maxine Guerrero	ia" Kunane Williams
Viewing	Short Program M.C. Mike Crozier	1. Eulogy	2. "Me & My Grandpa" By Ikaika	3. "Grandpa"	By Maka`ala	4. "My Grandpa & Grandma" By Kahea
00:9	7:30				•	

Services conducted by Associate

Viewing

Tuesday, February 6, 2001

Pastor Kenneth Alverio of the Jesus Coming Soon Apostolic

Faith Church.

Eulogy

Mariano Rellin By Maka'ala

5. Biographies of Our Favorite People

6. Poem "To My Dad" Author unknown

Rhonda"Dida"

Ferreria

7. The 23rd Psalm

Charlene Spencer

God's love is at the Heart of Kindness. "Mahalo" everybody, God bless until we meet again.

Viewing to continue until 9:00 p.m.

Music provided by: Lyle Batula